

## CLAIMS

What is claimed is:

- 1     1.     A method for associating data with product abstractions comprising the steps of:  
2             inspecting a first data set that includes data that corresponds to an offer to sell a  
3                     particular product by a particular party;  
4             based on the first data set, associating said particular product with a product category;  
5                     and  
6             matching said first data set with a product abstraction based, at least in part, on the  
7                     product category to which said particular product corresponds.
- 1     2.     The method of Claim 1, wherein said offer to sell a particular product by a particular  
2     party is a first product offering of a plurality of product offerings; said product abstraction is  
3     one of a plurality of product abstractions and each product abstraction is associated with one  
4     or more product categories; and the method further comprises the steps of  
5             generating mapping information associating each product offering in said plurality of  
6                     product offerings with one or more product abstractions in the plurality of  
7                     product abstractions;  
8             receiving a query; and  
9             generating a result set for the query based on said mapping information.
- 1     3.     The method of Claim 2, further comprising the steps of:  
2             charging a party associated a with a particular referenced entity in the result set based  
3                     at least in part on inclusion of said particular referenced entity in said result  
4                     set; and  
5             determining how much to charge the party based, at least in part, on a product  
6                     category associated with said referenced entity.

1 4. The method of Claim 2, wherein the result set is a list of one or more references.

1 5. The method of Claim 4, wherein each reference of the list of references corresponds  
2 to a referenced entity, and wherein each referenced entity associated with each reference in  
3 the list of references is one of a product abstraction, a merchant, a product offering or a  
4 product category.

1 6. The method of Claim 1, wherein the step of matching said first data set with a product  
2 abstraction further comprises the steps of:

3 determining that said first data set does not correspond to any product abstractions in  
4 a plurality of existing product abstractions;  
5 generating a new product abstraction based on said first data set; and  
6 matching said first data set with said new product abstraction.

1 7. The method of Claim 1, wherein the step of determining, based on a first data set, a  
2 product category to which a particular product corresponds further comprises the steps of:

3 determining that said first data set does not correspond to any product category in a  
4 plurality of existing product categories;  
5 generating a new product category based on said first data set; and  
6 associating said first data set with said new product category.

1 8. The method of Claim 2, wherein said result set includes a particular reference to a  
2 particular referenced entity, and wherein the method further comprises the steps of

3 providing said one or more result sets to one or more users; and  
4 monitoring the number of times that said one or more users select said particular  
5 reference associated with said particular referenced entity from said one or  
6 more result sets.

1 9. The method of Claim 8, further comprising the step of charging a party associated  
2 with said particular referenced entity a fee based on the number of times said one or more  
3 users select said particular reference.

4 10. The method of Claim 2, wherein the step of generating a result set further comprises  
5 generating a page that contains one or more sponsored references and one or more  
6 unsponsored references, wherein a sponsored reference is a first reference associated with a  
7 first referenced entity, and for which a first party associated with said first referenced entity  
8 is charged for each inclusion of said first reference in said one or more result sets, and  
9 wherein an unsponsored reference is second reference for which no party will be charged for  
10 each inclusion of said second reference in said one or more result sets.

1 11. The method of Claim 2, wherein the step of generating a result set further comprises  
2 generating a page that contains one or more attributes of one or more products in one or more  
3 particular product categories.

1 12. The method of Claim 2, wherein the step of generating a result set further comprises  
2 generating a page which contains a comparison of one or more attributes of one or more  
3 entities that are referenced in the page with one or more attributes of one or more other  
4 entities that are referenced in the page.

1 13. The method of Claim 8, further comprising the step of providing, to a party associated  
2 with said particular referenced entity, activity reports based on information generated during  
3 the step of monitoring the number of times said one or more users selects the reference  
4 associated with said particular referenced entity.

1 14. The method of Claim 2, wherein said list of references comprises a plurality of  
2 references, and wherein the method further comprises the steps of  
3 displaying said plurality of references in a particular order within said result set,  
4 determining said particular order based on a set of aspects of each reference in said  
5 plurality of references and a set of aspects of each referenced entity to which  
6 each reference in said plurality of references refers, wherein the aspects  
7 comprise one or more of likelihood that a reference satisfies a query, existence  
8 of sponsorship, and cost of sponsorship.

1 15. The method of Claim 2, wherein the step of generating the result set further  
2 comprises the steps of:

3 applying a similarity measure between one or more aspects of a particular reference  
4 and one or more aspects of a plurality of other references, wherein said  
5 aspects include one or more aspects of the reference and one or more aspects  
6 of the referenced entity; and  
7 selecting which references to include in said result set based on said similarity  
8 measure.

1 16. The method of Claim 1, wherein the step of matching said first data set with a product  
2 abstraction comprises the step of comparing an identifier corresponding to said product  
3 abstraction to an identifier corresponding to said first data set.

1 17. The method of Claim 16, wherein the identifier is chosen from the group consisting  
2 of Universal Product Code, International Standard Book Number, manufacturer,  
3 manufacturer's part number, and model number.

1 18. The method of Claim 1, wherein the step of determining a product category to which  
2 said particular product corresponds comprises the step of comparing an identifier  
3 corresponding to said product category to an identifier corresponding to said first data set.

1 19. The method of Claim 18, wherein the identifier is chosen from the group consisting  
2 of Universal Product Code, International Standard Book Number, manufacturer,  
3 manufacturer's part number, and model number.

1 20. The method of Claim 1, wherein the product category maps to one or more products  
2 abstractions, merchants, product offerings, and other product categories.

1 21. The method of Claim 1, further comprising the step of obtaining product information  
2 for said first set of data by extracting the product information from an electronic catalog.

1 22. The method of Claim 1, further comprising the step of obtaining product information  
2 for said first set of data by crawling web sites over the Internet.

1 23. The method of Claim 1, wherein said offer to sell a particular product by a particular  
2 party is a first product offering of a plurality of product offerings; said product abstraction is  
3 one of a plurality of product abstractions and each product abstraction is associated with a  
4 one or more product categories; and the method further comprises the steps of

5 generating mapping information associating each product offering in said plurality of  
6 product offerings with one or more product abstractions in the plurality of  
7 product abstractions; and

8 revising said mapping information, wherein the step of revising comprises one or  
9 more of the following steps:

10 changing a mapping between a data set and a product abstraction;

11 changing a mapping between a data set and a product offering;  
12 changing a mapping between a product abstraction and a product offering;  
13 changing a mapping between a product category and a data set;  
14 changing a mapping between a first product category and a second product  
15 category;  
16 changing a mapping between a product category and a product abstraction;  
17 changing a mapping between a product category and a product offering;  
18 changing a product category;  
19 changing a product abstraction;  
20 changing a product offering; and  
21 changing a data set.

1 24. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 1.

1 25. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 2.

1 26. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 3.

1 27. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 4.

1 28. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 5.

1 29. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 6.

1 30. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 7.

1 31. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 8.

1 32. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one/or more processors, causes the one or more processors to perform the  
3 method recited in Claim 9.

1 33. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 10.

1 34. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 11.

1 35. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 12.

1 36. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 13.

1 37. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 14.

1 38. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 15.

1 39. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 16.

1 40. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 17.

1 41. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 18.



1 42. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 19.

1 43. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 20.

1 44. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 21.

1 45. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 22.

1 46. A machine-readable medium carrying one or more sequences of instructions which,  
2 when executed by one or more processors, causes the one or more processors to perform the  
3 method recited in Claim 23.